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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/438,652	11/12/1999	NOBUO SASAKI	SCEI-16.677	9667

26304 7590 12/18/2002

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EXAMINER

GOOD JOHNSON, MOTILEWA

ART UNIT	PAPER NUMBER
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2672

DATE MAILED: 12/18/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/438,652

Applicant(s)

SASAKI ET AL. 

Examiner

Motilewa A. Good-Johnson

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 October 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 11/12/1999 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This office action is in response to the following communications: application, filed on 11/12/1999; IDS, paper #4, filed on 06/06/2000; IDS, paper #5, filed on 08/21/2000.
2. Claims 1-10 are pending in this application. Claims 1 and 6 are independent claims. No claims have yet been amended.
3. The present title of this application is "Image Generation Method and Image Generation Device" (as originally filed).

Priority

4. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Drawings

1. Color photographs and color drawings are acceptable only for examination purposes unless a petition filed under 37 CFR 1.84(a)(2) is granted permitting their use as acceptable drawings. In the event that applicant wishes to use the drawings currently on file as acceptable drawings, a petition must be filed for acceptance of the color photographs or color drawings as acceptable drawings. Any such petition must be accompanied by the appropriate fee set forth in 37 CFR 1.17(h), three sets of color drawings or color photographs, as appropriate, and an amendment to the first

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paragraph of the brief description of the drawings section of the specification which states:

The patent or application file contains at least one drawing executed in color. Copies of this patent or patent application publication with color drawing(s) will be provided by the U.S. Patent and Trademark Office upon request and payment of the necessary fee.

Color photographs will be accepted if the conditions for accepting color drawings have been satisfied.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-10 are rejected under 35 U.S.C. 102(b) as being anticipated by Bolton, U.S. Patent Number 4,343,037, "Visual Display Systems of the Computer Generated Image Type", class 345/582.

As per independent claim 1, an image generation method for generating a two-dimensional image by texture mapping . . . comprising the steps of: generating an overall pattern on said polygons by mapping of basic textures; Bolton discloses a patterned surface displayed in true perspective, col. 7, line 9; and executing by amplitude modulation mapping of modulation textures, amplitude modulation processing

on patterns . . . Bolton discloses an output signal defining brightness and colour of the surface image to modulate the display, col. 6, lines 30-32.

With respect to dependent claim 2, amplitude modulation processing . . . smaller with increasing distance from the vicinity of a viewpoint. Bolton discloses perspective transformation of texture and supplying eye point data and position data to the transformation, col. 6, lines 14-25.

With respect to dependent claim 3, repetition period of said basic textures and a repetition period of said modulation textures are offset from each other. Bolton discloses repetitive regions of the textural patterns are combined and patterns corresponding to the map levels nested within one another, col. 6, lines 48-53.

With respect to dependent claim 4, modulation textures are set to higher spatial frequencies than those of said basic textures, with color information removed . . . Bolton discloses the stored image set at the maximum spatial frequency and the texture memory system using this data, col. 16, lines 56-68.

With respect to dependent claim 5, modulation textures consist of different patterns from said basic textures. Bolton discloses modulating selected textured surfaces by a surface detail generator, col. 20, lines 30-34.

As per independent claim 6, an image generation device for generating a two-dimensional image by texture mapping . . . comprising: a memory means that stores basic textures to be mapped to generate the overall pattern . . . modulation textures used to amplitude-modulate the patterns . . . ; Bolton discloses storing in memory a pattern and a memory hierarchy produced from the texture pattern with cut-off spatial

frequencies, col. 17, lines 8-46; and an image processing means . . . Bolton discloses image generating means for providing a signal output representative of variable brightness, col. 7, lines 14-28, and further discloses modulating luminance values of a textured surface, col. 20, lines 30-34.

With respect to dependent claims 7-10, they are rejected based upon similar rational as above dependent claims 2-5.

Conclusion

3. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

6,317,137 B1	Rosasco	345/582	11/2001	12/1998
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Multi-threaded texture modulation for axis-aligned volume rendering.

4,586,038	Sims et al.	345/586	04/1986
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True-perspective texture/shading processor.

4,615,013	Yan et al.	345/582	09/1986
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Method and apparatus for texture generation.

4,905,164	Chandler et al.	345/606	02/1990
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Method for modulating color for effecting color cell texture.

4,727,365	Bunker et al.	345/427	02/1988
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Advanced video object generator.

Akeley, Reality Engine Graphics, ACM, 1993, pages 109-116.

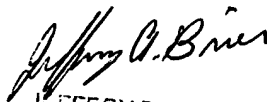
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Motilewa A. Good-Johnson whose telephone number is (703) 305-3939. The examiner can normally be reached on Monday - Friday 8:30 AM - 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mike Razavi can be reached on (703) 305-4713. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9314 for regular communications and (703) 872-9314 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 306-0377.

Motilewa A. Good-Johnson
Examiner
Art Unit 2672

mgj
December 6, 2002


JEFFERY BRIER
PRIMARY EXAMINER